

REMARKS

Applicant has carefully reviewed the Office Action dated March 26, 2007, and responds with the foregoing amendments and following remarks. A Supplemental Information Disclosure Statement and Request for a Three Month Extension of Time are concurrently submitted for consideration, along with authorization to debit any fees from Deposit Account 11-0978. Upon review and reconsideration, it is believed the Examiner will agree that all claims patentably distinguish over the art of record and should be allowed.

Claim 1 now reads on a display apparatus comprising a flexible display member including a flexible electronic pixel array and a control unit capable of controlling the flexible electronic pixel array. The display member is in the form of a strip of a size suitable to be positioned around a limb of a user. The display member is removably attached to the control unit, such that the display member can be detached and replaced with an alternative design or size to suit the user. This "removability" feature was essentially presented previously in dependent claim 20, which is now cancelled. Claim 37 is also amended to require a display member removably attached to a control unit positioned at one end of the display member.

In the Action, the Examiner rejects dependent claim 20 as being directed to an obvious invention in view of the Freeman, Maveety, and De La Huerga references. Having carefully considered these references, Applicant respectfully submits that they do not serve as the requisite substantial evidence establishing that a skilled artisan would find the invention of present claims 1 or 37 obvious.

Turning first to the primary Freeman reference (U.S. Patent No. 5,931,764), it fails to disclose a display member removably attached to a control unit, a point with which the Examiner expressly concurs (Office Action of 3/26/07, p. 6, lines 1-2). To supply this missing teaching, citation is made to the secondary De La Huerga reference as allegedly disclosing a "control unit" (element 204) releasably secured to a "distal portion" of a

display member so that the display member “can be disposed of and may be replaced to suit the user.” According to the Examiner, it would have been obvious to a skilled artisan “to modify the display apparatus of Freeman with a control unit that is releasably secured to the display member of Freeman so that the display member can be disposed of and the more expensive controller can be sterilized and reused as a [*sic an*] ID bracelet for a different patient in a hospital environment.”

Applicant respectfully submits that a skilled artisan would not be led to combine the features of these references for the reasons proposed by the Examiner (and, in fact, would actually be led away from their combination). The device 10 of Freeman includes a flexible LCD display strip 12 and other electronic components, none of which is characterized as being “removably attached” to each other in any way.¹ Undoubtedly, such a display member would be more expensive than the basic “disposable” inexpensive type of strap for receiving printing used in the invention of De La Huerga (which it expressly teaches “cannot be removed” without being destroyed; see the Abstract and col. 5, lines 56-57). Utilizing the display member of Freeman in the De La Huerga arrangement would defy the point of using a disposable strap that does not include relatively costly devices. In other words, De La Huerga when considered as a whole clearly teaches away from using the kind of “display member” proposed in Freeman in view of the desire to have the user intentionally destroy the strap when removing it. *See* MPEP § 2141.03 (“*A prior art reference must be considered in its entirety*, i.e., as a whole, including portions that would lead away from the claimed invention.”) (emphasis added).

Regardless of this teaching away, there is no evidence that a skilled artisan viewing the teachings of these references would arrive at the claimed invention. The strap of De La Huerga does **not** in any way include a flexible electronic pixel array of

¹ See *Dorel Juvenile Group, Inc. v. Graco Children's Prods.*, 429 F.3d 1043, 1045 (Fed. Cir. 2005) (affirming a holding that the claim term “removably attached” referring to a seat “carr[ies] with [it]

any sort. Rather, the “viewing surface” 116 of the strap is intended to have printed identification information (see col. 6, lines 31-34 and col. 11, lines 28-30). De La Huerga admittedly suggests providing a display on the transponder (col. 13, lines 47-53 and display 424 on the transponder 420 in Figure 11), but that display is plainly not on any flexible display member, as required by the claims. There is also no teaching whatsoever that the transponder of De La Huerga is capable of operating any flexible pixel array, since it merely “can receive information and transmit information to remote hand held electronic devices” (col. 6, lines 3-4). Thus, it is not properly considered a “control unit” for controlling any flexible pixel array, as claimed.

The Examiner’s position also disregards the fact that the information stored by the device of De La Huerga comprises medical history that is normally considered confidential and, unlike the patient’s printed name, would not be read from the strap. Indeed, one of the main reasons for using a transponder in De La Huerga is to allow for stored information to be read on a remote device, thereby avoiding the need to rotate a patient’s wrist to read the information from the strap (col. 2, line 60 to col. 4, line 45; see also, col. 5, lines 56-59, “it would be advantageous to have a patient identification mechanism which is . . . accessible without reorientating a patient or the bracelet.”). Making this information available on a display 12 of the type of Freeman would thus defeat these purposes of the De La Huerga arrangement.

Furthermore, no evidence in either Freeman or De La Huerga, or otherwise in the record, establishes that any “display member” should be made readily removable from any control unit so that it can be replaced “with an alternative design or size” of a display member to suit the user. The teaching of De La Huerga is limited to merely replacing a transponder on a strap, generally. Indeed, a reason De La Huerga proposes a removable transponder is because the bracelet is normally destroyed in order to be removed. Thus, the De La Huerga reference actually discourages providing an array of alternative display

an implication that the detachment or unsecuring process *not do violence to the seat.*”) (emphasis added).

members that a user can pick and choose from for use as fashion accessories, and Freeman is completely silent as to such.

In final analysis, De La Hueraga does not disclose any removable control unit capable of controlling a flexible pixel array, and neither does Freeman (by the Examiner's own admission). Maveety does not supply this teaching, either, and the Examiner does not contend otherwise. Accordingly, these references, even if combined, do not teach each and every limitation of the inventions of claims 1 and 37, as is required for a *prima facie* case of obviousness. See MPEP 2143.03 ("To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art."). Furthermore, the evidence of record actually would discourage a skilled artisan from combining the teachings of these references in the manner necessary to sustain the rejections. In light of the foregoing, favorable reconsideration of amended claims 1, 37, and all claims depending therefrom is therefore respectfully requested.

New claims 39-45 are also presented for consideration. Claims 39 and 41 read on a display apparatus comprising a flexible display member comprising a flexible electronic pixel array and a control unit. The display member is in the form of a strip of a size suitable to be positioned around a limb of a user, and comprises a strip or band or thin metal or plastic and which is initially axially straight and transversely concave. Claims 40 and 42 add the requirement that the control unit is removably secured to the display member.

A claim directed to the feature of a strip or band or thin metal or plastic and which is initially axially straight and transversely concave was previously rejected as "obvious" based on the combined teachings of Freeman and GB 2,373,990 to Broderick. Freeman as discussed above is concerned with a general purpose display apparatus and uses a sophisticated type of display technology, as compared with the simple LED arrangement used in Broderick for use in connection with a safety arm band used to increase the visibility of the wearer. A safety arm band is intended to be a durable, yet inexpensive and disposable item. Thus, it would not be desirable to use the more expensive (and

delicate) display technology of Freeman in such an arrangement.

Moreover, the arm band of Broderick is designed for use under low light conditions (see pages 5-6), while the Freeman device is intended to display time and other information that would not be visible in low light conditions. Accordingly, the ease of application considerations of Broderick would not be of concern to Freeman. Broderick's outer strip is also highly reflective and includes only intermittent LED displays, and thus it would be counter intuitive for a skilled artisan to consider this type of display in combination with the display 12 of Freeman. Neither of these references disclose the removability feature of claims 40 and 42, either. Accordingly, claims 39-42 are believed to patentably distinguish over Freeman, Broderick, and the other art of record.

New dependent claims 43-46 require a display apparatus of the respective independent claims in which a display is provided on both sides of the display member. A replacement sheet of drawings is provided to present Figures 1a and 1b illustrating this feature, support for which is found in the specification on page 9, lines 7-11, and proper specification amendments are made to reference these figures. None of the prior art references cited by the Examiner disclose or even remotely provide for this combination of features, so it is believed that these claims are directed to patentable inventions.

Finally, new dependent claims 47-64 are presented. Dependent claims 47-50 stem from each independent claim, and specify that a battery separate from the control unit forms part of the display member. Support for this feature is found in paragraph 33 of the specification, which passage is amended to correct a transcription error, as well as in Figure 4.

New claims 51-54 require that the display apparatuses of the independent claims include a light sensor for controlling illumination of the flexible pixel array in accordance with ambient light, and claims 55-58 require that the control unit of the independent claims includes a radio frequency link for remote control of a device. Full support for these claims can be found in the published U.S. patent application at paragraphs 34-35,

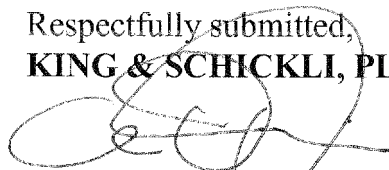
and a substitute version of Figure 4 is presented to provide the illustration required by 37 CFR 1.83(a) without adding any new matter.

Claims 59-60 specify a sound sensor in the display apparatus of claims 39 and 41, respectively. Support for this is found in paragraph 42 of the published application.

Finally, new claims 61-64 require that the display apparatus of the independent claims include a battery recharged by a solar cell or thermoelectric cell, such as based on the body heat of the wearer. Support for these claims is provided by paragraph 32 of the published application.

In light of the foregoing, Applicant respectfully requests reconsideration and allowance of all pending claims. In the event any further issue requires redress, the Examiner is invited to contact Applicant's counsel by telephone. Also, in the event any fee is due, please debit it from Deposit Account 11-0978.

Respectfully submitted,
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